

Yellow Springs, 4.5; Jacksonborough, 3.5; Upper Sandusky, 2.8; New Bremen, 2.1; Toledo, 2.

**Pennsylvania.**—Drifton, 27.5; Troy, 27; Mahanoy Plane, 24; Grampian Hills, 23; Wellsborough, 22.2; Wilkesbarre, 18.2; Dyberry, Catawissa, and Blooming Grove, 18; Erie, 15.5; South Bethlehem and Wysox, 10; Quakertown a, 5; Quakertown b, 4; Easton, 3.5; Pittsburg, 2.4.

**Utah.**—Salt Lake City, 10.4; Ogden, 4; Frisco, 2.5.

**Vermont.**—Post Mills, 20; Chelsea, 19.8; Strafford, 18; Woodstock, 17.2; Marlborough, 17; Burlington, 16; Jacksonville, 13; Brattleborough, 10.2; Windsor and Charlotte, 9; Townshend, 7; Vernon, 5; Newport, 3.9; Dorset, 2.2; Lunenburg, 2.

**West Virginia.**—Helvetia, 15.

**Wyoming.**—Cheyenne, 4.5.

**Wisconsin.**—Wausau, 2.5.

DEPTH OF UNMELTED SNOW ON GROUND AT END OF MONTH.

[Expressed in inches and tenths.]

**Colorado.**—Pike's Peak, trace.

**Dakota.**—Fort Totten, 2.

**Maine.**—Portland, 4.

**Massachusetts.**—Mendon, 0.8; Somerset, trace.

**Michigan.**—Port Huron, 1.2; Marquette, 0.2.

**Minnesota.**—Saint Vincent, 3; Moorhead, 0.3.

**New Hampshire.**—Mount Washington, 3; Nashua, 1.

**New Jersey.**—Dover, trace.

**New York.**—Mountainville, 7.8; Factoryville and Ithaca, 6; Syracuse, 3; Albany, Rochester, Palermo, and Auburn, 2; Menand Station, 1.5; Oswego and Cooperstown, trace.

**Ohio.**—Hiram, 2; Garrettsville, 1; Yellow Springs, trace.

**Pennsylvania.**—Wellsborough, 14.1; Drifton, 14; Blooming Grove, 11; Troy, 9; Dyberry, 8; Grampian Hills, 7; Mahanoy Plane and Catawissa, 6; Wysox, 5; Wilkesbarre, 4.5; Quakertown, 1.

**Vermont.**—Post Mills, 16; Woodstock, 13; Strafford, 10; Charlotte and Burlington, 6; Brattleborough, 3; Newport, 2; Dorset, trace.

**West Virginia.**—Helvetia, 3.

**Wisconsin.**—Wausau, 2.5.

#### HAIL.

Augusta, Georgia: hail fell on the 6th, three quarters of an inch in diameter, breaking a number of windows.

Cairo, Illinois: hail fell on the 1st, the size of peas, and at two miles east of this station the hail-stones were the size of grapes.

Astoria, Oregon: hail, of considerable size, fell on the 4th.

Tatoosh Island, Washington Territory, 8th: heavy thunder and lightning, accompanied by hail, which fell to the depth of one-half an inch, the ground being completely covered, and from a distance looked as if covered with snow; the hail-stones were one-half inch in diameter.

Hail storms, of which no particulars were reported, occurred in the various states and territories, as follows:

**Alabama.**—Birmingham, 1st.

**Arkansas.**—Little Rock, 18th.

**California.**—Fort Bidwell, 2d; College City, 10th.

**Colorado.**—Montrose, 11th.

**Connecticut.**—North Colebrook, 1st, 21st; Voluntown, 2d; New Haven, 24th.

**Georgia.**—Augusta, 6th; Savannah, 19th.

**Illinois.**—Anna, 15th.

**Louisiana.**—Liberty Hill, 6th; Grand Coteau, 9th.

**Maine.**—Buckfield, 3d, 18th, 20th.

**Michigan.**—Saginaw, 2d; Grand Haven, 2d, 3d; Pentwater, 2d, 13th.

**Nevada.**—Fort McDermitt, 2d.

**New Jersey.**—Dover, 3d, 22d, 26th; Somerville, 3d, 24th, 29th; Sandy Hook, 29th.

**New York.**—Setauket, 3d, 26th.

**North Carolina.**—New River Inlet, 19th.

**Oregon.**—Astoria, 2d; Albany, 4th; Bandon, 22d.

**South Carolina.**—Spartanburg, 6th.

**Tennessee.**—Milan, 6th.

**Washington Territory.**—Tatoosh Island, 2d, 5th, 10th; Pysht, 5th, 26th.

**Wisconsin.**—Embarras, 18th.

#### SLEET.

**Arizona.**—Prescott, 3d.

**Colorado.**—Pike's Peak, 20th, 21st.

**Connecticut.**—Bethel, 3d.

**Dakota.**—Bismarck, 3d, 23d; Fort Sully, 5th; Huron, 6th, 7th.

**Illinois.**—Bloomington, 20th, 22d.

**Indiana.**—Indianapolis, 21st; Greencastle, 22d.

**Indian Territory.**—Fort Supply, 23d.

**Iowa.**—Davenport, 8th.

**Maine.**—Portland, 3d; Eastport, 10th, 11th.

**Massachusetts.**—Boston, 22d; New Bedford, 26th.

**Michigan.**—Grand Haven, 1st, 2d, 3d, 15th, 21st; Escanaba, 1st, 4th, 12th, 20th, 28th.

**Minnesota.**—Saint Vincent, 27th, 28th.

**Nebraska.**—North Platte, 24th.

**Nevada.**—Winnemucca, 22d.

**New Hampshire.**—Mount Washington, 2d.

**New Jersey.**—Beverly, 23d, 25th, 29th; Princeton, 29th.

**New York.**—Oswego, 3d, 15th, 16th, 25th; Auburn, 21st; New York City, 29th.

**Ohio.**—Cleveland, 2d, 3d, 23d, 25th, 26th; Columbus and Cincinnati, 22d.

**Pennsylvania.**—Chambersburg, 1st, 3d; Erie, 2d, 3d, 13th, 21st, 22d; Philadelphia, 23d, 24th, 29th.

#### TEMPERATURE OF WATER.

The following table shows the highest and lowest temperatures of water observed at the several stations; the monthly ranges of water temperature; the average depth at which the observations were made; and the mean temperature of the air:

Temperature of water for November, 1885.

Station.	Temperature at bottom.		Range.	Average depth, feet and tenths.	Mean temperature of the air at station.
	Max.	Min.			
Atlantic City, New Jersey .....	57.7	45.4	12.3	11.3	50.7
Alpena, Michigan .....	49.5	32.4	17.1	12.7	39.2
Augusta, Georgia .....	60.0	47.0	13.0	10.2	63.8
Baltimore, Maryland .....	57.3	46.3	11.0	9.8	50.5
Block Island, Rhode Island .....	55.0	44.9	10.7	8.4	49.2
Boston, Massachusetts .....	49.3	39.2	10.1	20.9	47.3
Buffalo, New York .....	45.0	36.0	9.0	10.6	42.3
Canby, Fort, Washington Territory .....	55.8	49.3	6.5	16.5	50.6
Cedar Keys, Florida .....	72.9	59.9	16.0	7.9	66.0
Charleston, South Carolina .....	64.6	53.8	10.8	42.1	64.6
Chicago, Illinois .....	48.5	37.8	10.7	8.6	44.9
Chincoteague, Virginia .....	62.8	42.7	20.1	3.6	52.1
Cleveland, Ohio .....	52.8	38.5	14.3	14.0	43.3
Detroit, Michigan .....	46.7	39.5	7.2	25.2	44.1
Duluth, Minnesota .....	44.7	39.3	5.2	10.2	35.1
Eastport, Maine .....	49.1	44.8	4.3	16.8	42.1
Escanaba, Michigan .....	47.1	36.2	10.9	17.9	37.4
Galveston, Texas .....	76.0	58.7	17.3	12.7	66.0
Grand Haven, Michigan .....	45.9	35.9	10.0	19.0	40.7
Indianola, Texas .....	53.5	60.5	23.0	8.2	70.9
Jacksonville, Florida .....	58.4	58.4	10.0	18.0	68.9
Key West, Florida .....	80.0	70.0	10.0	17.4	74.6
Mackinaw City, Michigan .....	45.9	38.6	7.3	10.0	38.7
Macon, Fort, North Carolina .....	68.5	54.6	13.9	9.9	60.0
Marquette, Michigan .....	42.9	37.3	5.6	12.9	35.7
Milwaukee, Wisconsin .....	49.7	40.6	9.1	8.0	39.6
Mobile, Alabama .....	54.6	53.4	11.2	15.8	63.3
New Haven, Connecticut .....	54.0	40.6	13.4	16.2	48.2
New London, Connecticut .....	55.4	44.2	11.2	18.2	49.3
New York City .....	58.4	45.9	12.5	16.9	57.2
Pensacola, Florida .....	67.5	54.0	13.5	17.5	63.5
Portland, Maine .....	48.4	40.0	8.4	17.2	42.8
Portland, Oregon .....	53.9	44.8	9.1	51.3	49.4
Sandusky, Ohio .....	49.0	36.0	13.0	11.4	44.9
Sandy Hook, New Jersey .....	59.7	45.0	14.7	2.2	50.5
San Francisco, California .....	59.2	55.9	3.3	38.8	58.2
Savannah, Georgia .....	61.0	50.2	10.8	10.6	65.2
Smithville, North Carolina .....	67.1	55.0	12.1	11.0	60.4
Toledo, Ohio .....	49.2	35.9	13.3	13.2	45.0
Wilmington, North Carolina .....					

• Record for fourteen days.

#### WINDS.

The most frequent directions of the wind during November,

1885, are shown on chart ii by arrows flying with the wind; they are also given in the tables of miscellaneous meteorological data. In the upper Mississippi, lower Missouri, and Ohio Valleys, east Gulf states, and on the Atlantic coast south of New England, the prevailing winds were mostly from north-west; in the Lake region they were from northwest to southwest; in the west Gulf states and north Pacific coast region they were southerly; in the Rocky Mountain districts they were variable.

#### HIGH WINDS.

[In miles per hour.]

Wind-velocities of fifty or more miles per hour were recorded during the month, as follows:

Mount Washington, New Hampshire, 72, nw., 1st; 70, se., 2d; 66, nw., 3d; 67, nw., 4th; 58, nw., 5th; 50, w., 6th; 78, w., 7th; 60, sw., 8th; 74, nw., 9th; 95, nw., 10th; 90, nw., 11th; 78, nw., 12th; 59, sw., 13th; 82, nw., 16th; 91, nw., 17th; 57, sw., 18th; 55, n., 19th; 66, n., 20th; 58, ne., 23d; 51, e., 24th; 78, e., 25th; 63, ne., 26th; 52, ne., 27th.

Pike's Peak, Colorado, 55, n., 1st; 56, w., 2d; 71, w., 3d; 72, w., 6th; 72, n., 7th; 52, nw., 8th; 60, sw., 11th; 56, ne., 13th; 60, w., 16th; 52, nw., 17th; 56, sw., 20th; 52, nw., 29th.

Cape Mendocino, California, 68, se., 1st; 66, se., 3d; 56, se., 6th; 120, se., 7th; 52, se., 8th; 52, se., 15th; 64, se., 16th; 120, se., 17th; 74, se., 21st; 84, se., 22d; 125, se., 23d; 76, se., 24th; 64, se., 26th; 56, se., 27th; 60, se., 28th.

Fort Canby, Washington Territory, 57, se., 7th; 82, s., 18th; 68, s., 23d; 50, sw., 26th; 56, nw., 27th.

Portland, Maine, 50, se., 2d.

Valentine, Nebraska, 52, n., 6th; 54, nw., 11th.

Tatoosh Island, Washington Territory, 52, e., 7th.

Fort Elliott, Texas, 51, nw., 11th.

Barnegat City, New Jersey, 50, e., 23d.

Sandy Hook, New Jersey, 53, ne., 23d.

#### LOCAL STORMS AND TORNADOES.

Springfield, Illinois: a tornado is reported to have passed through Jacksonville, Morgan county, seventy miles west of Springfield, at about 6.30 p. m. of the 6th.

Cobden, Union county, Illinois: a storm of great severity passed over this place at 4 p. m. of the 6th; it was preceded by heavy hail.

Carmi, White county, Illinois: about 5 p. m. of the 6th this section was visited by a tornado which moved from southwest to northeast. Considerable property was destroyed, and several people were injured.

Pittsfield, Pike county, Illinois: a tornado passed through this county on the afternoon of the 6th, unroofing houses and barns, and doing considerable other injury to property.

Bloomington, McLean county, Illinois: at about 8 p. m. of the 6th a tornado passed through the extreme southwest portion of this place, causing considerable damage.

Muscatine, Muscatine county, Iowa: a tornado passed through Louisa county, southwest of Wapello, on the 6th. It moved in an east-northeasterly direction, causing damage to the amount of from \$6,000 to \$8,000. Debris, such as shingles, blades of corn, etc., were carried a distance of fifteen miles to the northeast of the track of the tornado.

Burlington, Iowa: at 3 p. m. of the 6th a funnel-shaped tornado-cloud passed over this place, striking the ground at a place called Latty, a few miles north of Burlington. The path of the tornado was about fifteen rods wide. Considerable damage was done.

Chatanooga, Tennessee: a tornado is reported to have passed over Decatur, Morgan county, Alabama, on the 6th, unroofing a number of large buildings, and wrecking two steamboats. The force of the tornado, which moved from southwest to northeast, was felt for only about two minutes. The damage is estimated at \$30,000.

Selma, Dallas county, Alabama: one of the most destructive storms known for many years occurred during the night of the 6-7th. Numerous buildings were destroyed, and forests, for

miles, were levelled. The storm passed through Dallas, Perry, and Bibb counties, its path being about one-half mile wide. Thirteen persons were killed and from forty to fifty injured. The storm appears to have been most severe in the vicinity of Plantersville, where a dwelling was blown to pieces with such violence that not even its foundation was left.

Vicksburg, Mississippi: a very unusual electrical display was observed here during a thunder-storm on the 6th.

Mackinaw City, Michigan: a severe thunder-storm passed over this station between 1.30 and 6.30 a. m. of the 7th; the thunder was terrific, and the lightning flashes very vivid. From 2 to 4 a. m. the flashes were almost incessant.

Sacramento, California: a tornado is reported to have occurred in Sacramento county, near the El Dorado county line, on the 7th. The cloud was funnel-shaped and moved northward, leaving a track a mile wide. The roar of the winds was heard when the tornado was several miles away. Much damage was done.

Opelika, Lee county, Alabama: one of the heaviest rains this section has ever experienced fell here on the 7th. Great damage was done to cotton in the field by a heavy fall of hail.

Hopkinsville, Christian county, Kentucky: a severe storm passed north of this place on the 11th; it blew down a dwelling, killing the inmates.

The following are reports of tornadoes which occurred during November, 1885, forwarded by special tornado observers of the Signal Service, of whom there are more than 1,400:

A destructive tornado occurred during the evening of the 5th near Avinger, Cass county, Texas; five persons were killed and seven injured. Two houses were destroyed.

A tornado occurred three miles southeast of New Harmony, Indiana, at 5.40 p. m. of the 6th; damage to property was slight.

At 4.20 p. m. of the 6th a tornado occurred at Alexis, Illinois, destroying a few buildings, entailing a loss of \$10,000. The funnel-shaped tornado-cloud moved north-northeast in a path eighteen miles long and 2,640 feet wide. The progressive velocity was fifty-seven miles per hour.

A tornado passed through White county, Illinois, near Carmi, at 4.45 p. m. of the 6th. The tornado-cloud was funnel-shaped and moved northeast, revolving contrary to the hands of a watch. The length of the path was forty miles and varied in width from 330 to 1,320 feet. One person was killed, many buildings destroyed; the damage is estimated at \$50,000.

A tornado occurred near Dawson, Hopkins county, Kentucky, at 4 p. m. of the 6th, causing the destruction of several buildings, and killing one person.

A tornado passed through Rockport, New Salem, Perry, and Versailles, Illinois, at 3.15 p. m. of the 6th. The tornado-cloud was funnel-shaped, moved north-northeast, and revolved contrary to the hands of a watch, destroying many buildings, and injuring two persons.

A tornado occurred at Alta, Peoria county, Illinois, at 5.45 p. m. of the 6th. The funnel-shaped tornado-cloud moved northeast, destroying several buildings.

A tornado occurred near Rusk, Cherokee county, Texas, at 5 p. m. of the 6th. The tornado-cloud was funnel-shaped, and moved northeast for a distance of eight miles. Three persons were injured, some stock killed, and several buildings destroyed. Loss \$15,000.

A tornado occurred at Brewersville, Sumter county, Alabama, at 8 p. m. of the 6th. The tornado-cloud moved northeast, destroying a number of buildings along its path, which was twelve miles in length; several persons were injured, and a number of cattle killed.

A tornado passed through Orrville, Frog Level, Logan's, and ended near Plantersville, Alabama, at 3.30 p. m. of the 6th; it moved northeast for a distance of thirty miles, having a width varying from 300 to 2,640 feet. The tornado-cloud was funnel-shaped, and revolved contrary to the hands of a watch; it had a progressive velocity of twenty miles per hour. Thirteen persons were killed and fifty wounded; thirty houses were destroyed, also several mills, stables, etc.

A tornado occurred two miles northeast of Vernon, Lamar county, Alabama, at 10 p. m. of the 6th; moving northeast, blowing down houses, trees, etc. The length of the path was thirty miles, and width 300 to 2,700 feet.

A tornado occurred at Estill Springs, Franklin county, Tennessee, at 2 p. m. of the 6th. The tornado-cloud was funnel-shaped, and moved N. 40° E. for a distance of thirty-five miles, with a width of path varying from one hundred and fifty to six hundred feet. Three persons were killed, eight injured, and five houses and a church destroyed.

A tornado occurred at Spartanburg, South Carolina, at 10 a. m. of the 6th, unroofing a hotel and church; no other damage. The path was ninety feet in width.

### NAVIGATION.

#### STAGE OF WATER IN RIVERS.

In the following table are shown the danger-points at the various river stations; the highest and lowest stages for November, 1885, with the dates of occurrence, and the monthly ranges:

*Heights of rivers above low-water mark, November, 1885.*

*[Expressed in feet and tenths.]*

Stations.	Danger-point on gauge.	Highest water.		Lowest water.		Monthly range.
		Date.	Height.	Date.	Height.	
<i>Red River:</i>						
Shreveport, Louisiana.....	29.9	13, 14, 15	5.7	1, 2, 3	2.0	3.7
<i>Arkansas River:</i>						
Fort Smith, Arkansas.....	22.0	7	3.6	24 to 30	2.5	1.1
Little Rock, Arkansas.....	23.0	9	4.2	28, 29, 30	2.9	1.3
<i>Missouri River:</i>						
Yankton, Dakota.....	24.0	1, 2	11.5	30	10.7	0.8
Omaha, Nebraska.....	18.0	9	6.5	19, 20, 21, 30	5.8	0.7
Leavenworth, Kansas.....	20.0	13	7.6	9	6.9	0.7
<i>Mississippi River:</i>						
Saint Paul, Minnesota.....	14.5	9, 10	3.0	22, 27	1.9	1.1
La Crosse, Wisconsin.....	24.0	1 to 4, 15, 16	3.7	28, 28, 30	3.4	0.3
Dubuque, Iowa.....	16.0	1	4.0	28, 29, 30	3.6	0.4
Davenport, Iowa.....	15.0	8, 9	3.7	30	2.7	1.0
Keokuk, Iowa.....	14.0	11	5.2	30	3.3	1.1
Saint Louis, Missouri.....	32.0	9, 10	12.6	30	9.3	3.3
Calro, Illinois.....	40.0	14, 15	26.5	2	12.8	13.7
Memphis, Tennessee.....	34.0	17, 18	19.0	4, 5	7.8	11.2
Vicksburg, Mississippi.....	41.0	22, 23	23.2	1	7.9	15.3
New Orleans, Louisiana*.....	13.0	22	6.1	1, 3	2.6	3.5
<i>Ohio River:</i>						
Pittsburg, Pennsylvania.....	22.0	25	7.3	18, 19	3.4	3.9
Cincinnati, Ohio.....	50.0	12	20.0	22, 23	11.1	8.9
Louisville, Kentucky.....	25.0	14	8.7	24, 25, 26	6.1	2.6
<i>Cumberland River:</i>						
Nashville, Tennessee.....	40.0	11	27.0	28, 30	6.5	20.5
<i>Tennessee River:</i>						
Chattanooga, Tennessee.....	33.0	9	30.4	30	4.4	26.0
<i>Monongahela River:</i>						
Pittsburg, Pennsylvania.....	29.0	25	7.3	18, 19	3.4	3.9
<i>Savannah River:</i>						
Augusta, Georgia.....	32.0	9	23.7	5, 6, 22	7.8	15.9
<i>Mobile River:</i>						
Mobile, Alabama.....		6	17.1	25	14.7	2.4
<i>Sacramento River:</i>						
Red Bluff, California.....		25	21.0	1, 2, 3	0.3	20.7
Sacramento, California.....		30	21.2	1, 2, 3	7.5	13.7
<i>Willamette River:</i>						
Portland, Oregon.....		8, 9	8.3	2	1.3	7.0
<i>Colorado River:</i>						
Yuma, Arizona.....		20	16.5	11 to 19	15.6	0.9

NOTE.—The zero of river-gauge at New Orleans was changed on November 1, 1885, from high-water of 1874 to low-water of 1876. This change makes the readings 16.2 feet lower than those made previous to November 1, 1885.

#### ICE IN RIVERS AND HARBORES.

*Red River of the North.*—Saint Vincent, Minnesota: floating ice on 12th; navigation closed for the season on the 13th.

*Missouri River.*—Fort Yates, Dakota: floating ice on the 7th, 12th, 17th, and 26th; on the 30th the river was entirely clear of ice, a very unusual occurrence at this date.

Poplar River, Montana, 30th: river gorged with ice; navigation closed.

Fort Buford, Dakota: navigation closed on the 9th.

Fort Sully, Dakota: floating ice observed in the river on the 18th.

*Devil's Lake.*—Fort Totten, Dakota, 14th: lake nearly frozen over; navigation suspended.

*Mississippi River.*—Saint Paul, Minnesota: floating ice, 14th; navigation closed on the 16th.

Dubuque, Iowa: the last boat from the south went into ice harbor on the 22d, closing navigation for the season.

Keokuk, Iowa: the last boat from Saint Paul, Minnesota, arrived on the 23d; navigation above this point closed.

*Duluth Bay.*—Duluth, Minnesota: thin ice formed in the bay on the 24th.

*Maumee Bay.*—Toledo, Ohio, 29th: ice formed in the bay during the past three nights.

#### FLOODS.

Nashville, Tennessee: on the 8th the Cumberland River rose ten feet in twenty-four hours, with a large amount of drift-wood. The recent heavy rains that have fallen throughout this section have caused a considerable rise in all the streams, and damaged property to a limited extent.

Chattanooga, Tennessee: at 2 p. m. on the 8th the river had risen fourteen feet in the preceding twenty-four hours, which is the most rapid rise recorded since the establishment of this station. At 9 p. m. the river reached twenty-eight feet, and at 2 p. m. of the 9th it was thirty and four-tenths feet, the highest stage for the month.

Yuma, Arizona: the rain of the 19th and 20th was the heaviest that has fallen in this vicinity for a long time, and great damage was done to the track of the Southern Pacific railroad, causing delay of trains.

San Francisco, California, 20th: the rainfall for the month at this place has never been exceeded. Reports from Los Angeles state that washouts have occurred on the Southern Pacific railroad, and a portion of the San Fernando tunnel has caved in; the railroad bridge at Cajon Pass was carried away, and great damage done by freshets in all sections of the state.

Petaluma, Sonoma county, California: the storm which set in on the 15th caused Petaluma Creek to overflow, flooding the cellars in the town, and carrying away quantities of cord wood and lumber.

Los Angeles, California, 20th: the heavy rains of the past few days have been unprecedented at this station, and have caused serious damage to railroads and other property.

San Luis Obispo, San Luis Obispo county, California: a remarkably heavy rain fell during the night and early morning of the 18th, and continued at intervals until 2.30 p. m., the total rainfall for this storm being 10.04 inches. This rainfall is generally considered to have been the heaviest that has ever occurred here. All the bridges on the creek running through this town, with one exception, were washed away; in one case a bridge carried with it a large adjoining house. The water-works were also seriously damaged. Telegraph lines were prostrated, and mails delayed. The damage in this vicinity is estimated at \$13,000.

Red Bluff, California, 24th: the continuous, heavy rains have caused a rapid rise in the river. On this date a portion of the track of the California and Oregon railroad was washed away, also several hundred logs from the boom of the Redding Lumber Company. At this place 120,000 bricks in a kiln were dissolved by the heavy rain. All small creeks in the county are much swollen, impeding travel, and drowning considerable stock.

Santa Cruz, Santa Cruz county, California: on the 24th the Lorenzo River overflowed. The rise was so sudden that the people scarcely realized danger until their houses were flooded. Large quantities of drift-wood lodged against the railroad bridge.

Santa Rosa, Sonoma county, California: the creeks in this vicinity were much swollen on the 25th. Many bridges and buildings, and much fencing, were washed away.

#### HIGH TIDES.

New Haven, Connecticut: the tide rose to an unusual height on the morning of the 2d, and damaged wharf property.

Fort Macon, North Carolina, 23d: the tide was extremely high, for westerly winds, the entire marsh lands being submerged.

Little Egg Harbor, New Jersey: a very high tide occurred on the 23d; out-houses, pavilions, and wharves were flooded.